PTO/SB/08A (04-03) Approved for use through 04/30/2003. OMB 0551-0031
U.S. Petent and Trademerk Office; U.S. DEPARTMENT OF COMMERCE

U.S. Petent and Trademerk Office; U.S. DEPARTMENT OF COMMERCE

OFFICE OFFICE OF COMMERCE

OFFICE OF COMMERCE

OFFICE OF COMMERCE

OFFICE OF COMMERCE

OFFICE OFFICE OF COMMERCE

OFFICE OFFICE OF COMMERCE

OFFICE OFFICE OFFICE OF COMMERCE

OFFICE OFFICE

Under the Paperwork Reduction Act of 1995 Complete if Known

Substitute for form 1449/PTO

Sheet 1

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of 2

|                        | inpicto il raiowii   |
|------------------------|----------------------|
| Application Number     | 10/757,392           |
| Filing Date            | January 15, 2004     |
| First Named Inventor   | You-seop LEE, et al. |
| Art Unit               | 3746                 |
| Examiner Name 2        |                      |
| Attorney Docket Number | 2/0//39              |

|                    |              | <b></b>  | <u>U. S. PATEN'</u>            | DOCUMENTS  |   |
|--------------------|--------------|--|--------------------------------|--|---|
| Examiner tritials* | Cite<br>No.1 | Document Number  Number-Kind Code <sup>3 (f bioms)</sup> | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
| 2116               |              | <sup>US-</sup> 5,901,037                                 | 05-04-1999                     | HAMILTON, et al.                                   |   |
| 70                 |              | U\$-   |                                |  |   |
|                    |              | US-  |                                |  |   |
|                    |              | US-  |                                |  |   |
|                    |              | VS-  |                                |  |   |
|                    |              | US   |                                |  |   |
|                    |              | US   |                                |  |   |
|                    |              | US-  |                                |  |   |
|                    |              | US   | 1                              |  |   |
|                    |              | US-  |                                |  |   |
|                    |              | US-  |                                |  | <del>-</del>  |
|                    |              | US-  |                                |  |   |
|                    |              | US-  |                                |  |   |
|                    |              | US-  | 1                              |  |   |
|                    |              | US-  |                                |  |   |
|                    |              | US   |                                |  | u   |
|                    |              | VS-  |                                |  |   |
|                    | 7.           | US   | †                              |  |   |
| $\nearrow \sqcap$  |              | US-  |                                |  |   |

|                       |             | FORE   | IGN PATENT DOCU                                    | MENTS   |                            | _        |
|-----------------------|-------------|--|--|---|----------------------------|----------|
| Examiner<br>Initials* | Cite<br>No. | Cite   Foreign Patent Document   Publication                                     | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages |                            |          |
|                       |             | Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (# known) | MM-DD-YYYY   |   | Or Relevant Figures Appear | Τª       |
|                       |             |  |  |   |                            |          |
|                       |             |  |  |   |                            |          |
|                       |             |  |  |   |                            |          |
|                       |             |  |  |   |                            | <u> </u> |
|                       |             |  |  |   |                            | <u>Ļ</u> |
|                       | <u> </u>    |  |  |   |                            | Ļ        |

Examiner Date Signature 12007 Considered

EXAMINER: Initial if reference copsidered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this before with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uszto.gov/">www.uszto.gov/</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the sertal number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

OU 23/2004

PTO/SB/08B (04-03)

Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

|       |   | Substitute for form 1449/PTO |                      |                        | Complete if Known |
|-------|---|------------------------------|----------------------|------------------------|-------------------|
|       |   |                              |                      | Application Number     | 10/757,392        |
|       | FORMATION DISCLOSURE ATEMENT BY APPLICANT |                              | Filing Date          | January 15, 2004       |                   |
| STA   |   | PPLICANT                     | First Named Inventor | You-seop LEE, et al.   |                   |
|       |   | ocossană                     | Art Unit             | 3746                   |                   |
|       | (550 05 11211) 0.7                        |                              | , accassing,         | Examiner Name ?        |                   |
| Sheet | 2   | of                           | 2                    | Attorney Docket Number | 249/438           |

| Examiner  | Cite         | NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of                          | _  |
|-----------|--------------|--|----|
| Initials* | Cite<br>No.1 | the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T² |
| 2/W       |              | STEMME, "A valveless diffuser/nozzle-based fluid pump", Sensors and Actuators A. 39:159-167 (1993)   |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |
|           |              |  |    |

| Examiner<br>Signature | here & Weinte   | Date<br>Considered | 01/24/2007 |
|-----------------------|---|--------------------|------------|
| "EYAMINED. In         | itial if reformant found to be there are not extend to be conformance with ALDED or | S = 11 - 11        |            |

"EXAMINER: Initial if reference of pastered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 120 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Cifficer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

Approved for use through 04/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

Sheet 1

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

| Complete if Known      |                      |  |  |  |  |  |
|------------------------|----------------------|--|--|--|--|--|
| Application Number     | 10/757,392           |  |  |  |  |  |
| Filing Date            | January 15, 2004     |  |  |  |  |  |
| First Named Inventor   | You-seop LEE, et al. |  |  |  |  |  |
| Art Unit               | 3746                 |  |  |  |  |  |
| Examiner Name          | Weinstein            |  |  |  |  |  |
| Attorney Docket Number | 249/438              |  |  |  |  |  |

| A              |  | U. S. PATENT D                                   | OCUMENTS   |   |
|----------------|--|--|--|---|
| Initiats* Cite | Document Number  Number-Kind Code <sup>2 of known)</sup> | Publication Date MM-DD-YYYY                      | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, When<br>Relevant Passages or Relevan<br>Figures Appear |
| 2 2004         | US-  |  |  | - I garder Appear   |
|                | US-<br>US-   |  |  |   |
| PADEMAN        | US-  | <del>-</del>                                     |  |   |
| RAUE           | US-  |  |  |   |
| _ +            | US-  | +  | <del>/</del>                                       | 1   |
|                | US-  | +  |  |   |
|                | US-  |  |  |   |
| <del></del>    | US-  | <del>                                     </del> |  |   |
|                | US-  |  |  | <del></del>   |
|                | US-  | <del>                                     </del> |  | <del>                                     </del>                              |
|                | US-  |  |  | +   |
|                | US   |  |  |   |
|                | US-  |  |  |   |
|                | US-  |  |  |   |

|  | FORE   | IGN PATENT DOCL             | IMENTS  |   |                         |
|--|--|-----------------------------|---|---|-------------------------|
| Initials* No.1 Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (i | Foreign Patent Document  | Publication<br>Date         | Name of Patentee or<br>Applicant of Cited Document      | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | Т                       |
|  | Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>8</sup> (# known) | MM DD VVVV                  | Total of Onco Document                                  |   | T                       |
|  |  | 01-07-1988                  | OKAYASU   |   | 一                       |
|  |  | 07-17-1996                  | KIMURA, et al.  |   | 一                       |
|  |  |                             |   |   |                         |
|  |  |                             |   |   | ┢                       |
|  |  | 02-12-2003                  | KOMURO, et al.  |   |                         |
|  | Cont'd on pg 2 of 2  |                             |   |   |                         |
|  |  | No. Foreign Patent Document | Foreign Patent Document   Publication Date   MM-DD-YYYY | No.1   Date   MM-DD-YYYY   Applicant of Cited Document                          | Foreign Patent Document |

Examiner Signature Date Considered 0 / 24/ 2007

\*EXAMINER: tritial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (MIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. If Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

PTO/SB/08A (04-03) Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

249/438

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449/PTO **Application Number** 10/757,392 Filing Date January 15, 2004 INFORMATION DISCLOSURE First Named Inventor You-seop LEE, et al. STATEMENT BY APPLICANT Art Unit 3746 (Use as many sheets as necessary) **Examiner Name** Sheet 2

**Attorney Docket Number** 

|                    | ,                        |  | U. S. PATENT D                                   |  |   |
|--------------------|--------------------------|--|--|--|---|
| Examiner Initials* | Cite<br>No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY                   | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                    |                          | Number-Kind Code <sup>2 (F Incomp)</sup> | <del></del>                                      |  | Figures Appear  |
|                    | L                        | US-                                      |  |  |   |
|                    |                          | US-                                      |  | ·  |   |
|                    |                          | UŞ-                                      |  | · · · · · · · · · · · · · · · · · · ·              |   |
|                    |                          | US-                                      |  |  |   |
|                    |                          | US-                                      | 1  |  |   |
|                    |                          | US-                                      |  |  |   |
|                    |                          | US-                                      |  |  | <del></del>   |
|                    |                          | US-                                      | <del>/                                    </del> |  |   |
|                    |                          | US-                                      |  |  |   |
|                    |                          | US-                                      | <del>                                     </del> |  |   |
|                    |                          | US-                                      |  |  |   |
|                    |                          | US-                                      |  |  | <del></del>   |
|                    |                          | us.                                      |  |  | +   |
|                    | $\sim$                   | US-                                      | <del>                                     </del> |  | +   |
| -                  |                          | US-                                      | ļ  |  |   |

|     |              | FORE   | IGN PATENT DOCU             | MENTS  |   |    |
|-----|--------------|--|-----------------------------|--|---|----|
|     | Cite<br>No.1 | Foreign Patent Document  | Publication Date MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages | Г  |
|     | <u> </u>     | Country Code <sup>2</sup> Number <sup>4</sup> "Kind Code <sup>3</sup> (if known) |                             |  | Or Relevant Figures Appear                        | 10 |
| HA  |              | DE 44 22 743 A1*   | 01-04-1996                  | GERLACH  |   | ┢  |
| 200 |              | WO 96/00849 *  | 01-11-1996                  | GERLACH  |   |    |
|     |              | *Equivalents - See   |                             |  |   |    |
|     |              | English Abstract on  |                             |  |   | 1  |
|     |              | WO 96/00849.   |                             |  |   |    |
|     |              |  |                             |  |   | ┝  |

Signature Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of his form with next communication to applicant. Applicant's unique citation designation number (optional). See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3), For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Nind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language

This collection of information is required by 37 CFR 1.97 and 1.98. The Information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.